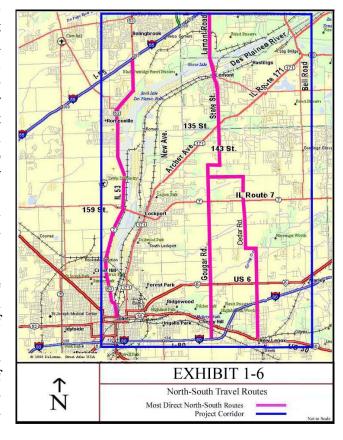
PURPOSE AND NEED

FAP 340 (I-355 SOUTH EXTENSION)

roadway network comprising a functional mix of roadways that do not match traffic demand. The lack of a direct roadway for north-south travel is illustrated in Exhibit 1-6. The Exhibit identifies primary routes for north-south travel within the Project Corridor. The most direct north-south travel routes include Gougar Road to State Street/Lemont Road and Cedar Road to State Street/Lemont Road. Both routes provide one lane in each direction, provide limited capacity and are congested. IL Route 53 provides another direct north-south route. However, access to this route from the Project Corridor is constrained by an inadequate number and capacity of bridge crossings over the Des Plaines River. The Des Plaines River follows the western and northern borders of the Project Corridor and is a barrier to travel in both the east-west and northsouth direction.



Outside of Joliet, four bridges over the Des Plaines River serving the Project Corridor exist at State Street/Lemont Road, IL Route 83, IL Route 7 and 135th Street. The bridges at State Street/Lemont Road and IL Route 83 are located at the north end of the Project Corridor and are oriented in a north-south direction. The bridges at IL Route 7 and 135th Street are located on the west side of the Corridor and are oriented in an east-west direction. Capacity at these bridges is constrained as a result of inadequate lane capacity, complex geometry of approach roads and numerous traffic signals. Draft SEIS, Section 1.2.4 further details these constraints.

In addition to the capacity limitations caused by the non-direct roadway network and limited bridge crossings over the Des Plaines River, mobility is constrained by a limited functional mix of roadways present within the Project Corridor. Two-lane arterials are the highest functional roadway classification within the Corridor. The absence of higher level facilities within the Project Corridor results in the use of two-lane arterial roadways for regional travel. This creates congestion and reduces safety and mobility. Two-lane arterials are designed to serve through travel in rural areas and as circulatory routes for a limited service area in urban areas (AASTHO, 1990). The roadway network in the Project Corridor was constructed more than 50 years ago when the area was rural. At that time, the use of two-lane arterials as the highest level facility for through traffic was suitable for the lower traffic demands. However, the Project Corridor has undergone rapid develop-

ment and is now on the urban fringe making the two-lane arterial based local roadway network less efficient.

Area development has and will continue to increase the volume of local trips within the Project Corridor, as well as trips of local origin to suburban job centers and other regional destinations. The limited capacity of the two-lane arterial network to accommodate this demand has resulted in congestion, increased travel times and reduced safety. Furthermore, the addition of regional trips onto local arterials resulting from the absence of higher level interstate and freeway facilities for north-south travel within the Project Corridor has resulted in conflicting use between local and regional travel and has further degraded roadway efficiencies and safety.

As a result, the number of crashes in the Project Corridor is projected to increase 43 percent between 1996 and 2020 under the No-Action (Baseline) scenario. Mobility is projected to substantially degrade due to a 151 percent increase in No-Action (Baseline) travel times within the Project Corridor projected by CATS between 1996 and 2020.

The 151 percent increase in local travel times will result in lost productivity costs amounting to \$85,000 per day or over \$21 million dollars per year (in year 2000 dollars). Refer to <u>Draft SEIS</u>, <u>Section 1.2.4</u> for additional information addressing productivity cost and safety.

A Transportation System Improvement is needed to improve local mobility and safety by providing a direct route for north-south travel, by adding another bridge crossing over the Des Plaines River valley and by improving the functional mix of roadways to better accommodate existing and projected traffic demand. Refer to <u>Draft SEIS</u>, <u>Section 1.2.4</u> for a complete discussion of the need to address local system deficiencies.

1.3 Conclusion

Between 1990 and 2000 the population of Will County increased 41 percent making it the second fastest growing county in Illinois (U.S. Census, 2000). NIPC forecasts the population of Will County to double by 2020. County and local land use plans focus this growth within the Project Corridor and designate over 75 percent of Project Corridor for residential and commercial development. The Project Corridor contains some of the last major areas of land open for development within a 48 kilometer (30 mile) radius of the Chicago central area.

A Transportation System Improvement is needed to achieve local planning goals of focusing development within the Project Corridor and to achieve regional goals of promoting development as close as possible to the Chicago urban core to keep the urbanized area compact.

While job growth is a goal of local comprehensive plans, forecasts indicate continued job shortages within the Project Corridor through 2020. Suburban job centers in DuPage and western Cook Counties are growing and represent a primary source of jobs for Project Corridor labor. CATS projects travel times from the Project Corridor to these suburban job centers will increase 43 percent on average and up to 56 percent by 2020 under the No-Action (Baseline) scenario. A Transportation System Improvement is needed to re-

duce these travel times by improving highway access to these job centers from the Project Corridor.

Existing interstate routes that serve the Project Corridor are circuitous and do not provide good north-south regional access through the Project Corridor. Regional travel times from the Project Corridor are projected to increase from 12 to over 25 percent to over three-quarters of the region by year 2020 under the No-Action (Baseline) scenario. A Transportation System Improvement is needed to provide a more direct north-south transportation corridor between I-55 and I-80, thereby improving regional mobility.

Finally, Project Corridor land use is rapidly transitioning from rural to urban/suburban. The rural based arterial roadway network lacks the capacity to serve the traffic demand resulting from this development. CATS projects average local travel times within the Project Corridor to increase an average of 151 percent by 2020 under the No-Action (Baseline) scenario. Increased travel demand will substantially decrease safety. The number of crashes in the Project Corridor is projected to increase 43 percent between 1996 and 2020 under the No-Action (Baseline) scenario. A Transportation System Improvement is needed to reduce local travel times and improve safety by adding capacity for local travel and by providing an alternative to local arterials for longer distance regional travel.